

**Microzone Corporation Ninhydrin Processing Hood  
Technical Specification**

**PART 1 GENERAL**

**PART 1.01 GENERAL INFORMATION**

This Section specifies all requirements necessary to furnish and install Ninhydrin Processing Hood including, but not limited to the following:

1. This specification covers the requirements for Ninhydrin Processing Hood with a negative pressure flow with a fully exhausted work environment.
2. Nominal 6 and 8 foot widths are covered by this specification.
3. This specification sets the intent for quality, performance and appearance.
4. Supply and install as scheduled in laboratory schedule and drawings.
5. Coordinate installation with other trades to avoid onsite conflicts.
6. Reference related sections within the specification document in conjunction with the following specifications to insure total requirements for the referenced Ninhydrin Processing Hoods are provided.

**1.02 QUALITY ASSURANCE**

1. The manufacturer shall maintain a testing facility at their place of business for the performance testing of the work stations. Both the supply of the work stations and installation shall be in conformance to good construction practice and approved by the owner/user. The test facility as well as the manufacturing facility must be available for an owner/user inspection and its quality control procedures. All work stations to be wired for 115 volts, 60 Hz

**1.03 REFERENCES**

1. The Ninhydrin Processing Hood shall conform to the current regulations and federal standards.

**1.04 SUBMITTALS**

1. Ninhydrin Processing Hood specification sheets and product manuals shall be submitted by the manufacturer upon request. The supplier shall submit shop drawings when necessary for clarification.
2. Provide a detailed copy of the test results conducted prior to shipping to ensure compliance shall be shipped with each cabinet.

**1.05 DELIVERY AND STORAGE**

1. Ninhydrin Processing Hood shall be delivered in unopened crated packages adequately protected from damage during shipment.
2. Exercise extreme care in handling all work stations to prevent any damage.
3. Store materials within the building in the space designated for storage. Store materials in such manner as to prevent any damage or intrusion of foreign matter. Any damaged materials must be noted and scheduled with the job site installation foreman for removal and replacement from the job-site prior to installation.

**1.06 WARRANTY**

1. Manufacturer's warranty against defects in material or workmanship for 1 year from date of shipping, shall include replacement of parts (except prefilters, HEPA or ULPA filters and lamps) and labor. The cabinet supplier shall not be responsible for or liable for any modifications, alterations, misapplication or repairs made to the products in the field after product final installation.

***"Simply Building Better Environments For Advanced Technology & Life Sciences"***

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**PART 2 - PRODUCTS**

**2.01 PRODUCT NAME**

Ninhydrin Processing Hood, model number as described below:  
6 Foot Model: MWS-6, 8 Foot Model: MWS-8

**2.02 ACCEPTABLE MANUFACTURER**

Microzone Corporation,  
Laboratory Equipment Group,  
86 Harry Douglas Drive,  
Ottawa, Ontario, Canada, K2S 2C7  
Phone: 613-831-8318, or Toll Free: 1-877-252-7710  
Fax: 613-831-8321, Email: [sales@microzone.com](mailto:sales@microzone.com)

**2.03 MATERIALS OF CONSTRUCTION**

1. Interior construction shall include walls constructed from white polypropylene. The sectional work surface with integral primary and secondary containment tanks and perforated front air intake airfoil shall also be constructed from white polypropylene.
2. All modular construction with shell constructed from all white polypropylene (fire retardant is available as an option) without exposed bolts or nuts.
3. The exhaust plenum shall be integral and constructed from white polypropylene. The exhaust shall terminate in a duct collar connection flange in a up draft exhaust plenum design to provide a minimum capture velocity of 100 linear feet per minute.
4. Qty-1 integral drop in sink module 39" L X 22" W X 14" D constructed from white polypropylene with perimeter lip exhaust, bottom mounted drain with remote service operation and quick connect fitting terminating in the vented base storage section of the Ninhydrin Processing Hood.
5. Face and side safety viewing shields constructed from clear P.V.C.
6. Qty-4 surface mounted removable drying evidence rods constructed from braided polypropylene rope.
7. The Ninhydrin Processing Hood shall incorporate a sealed secondary spill containment design with integral bottom mounted labeled drain connection NPT fitting termination.
8. D.I. water, city hot and cold manifold with no dead legs with single point termination to rear of the Ninhydrin Processing Hood with manual remote operators located on the front valence panel. View laboratory schedule, and drawings for location.
9. Electronic "AFI-X2" airflow alarm gauge shall monitor system exhaust airflow. This system reports the static condition of the unit's exhaust airflow providing both visual and audible alarms signaling a problem with the building exhaust fan or increased static pressure.
10. All services factory plumbed and wired for single point field connection. All electrical termination to be located to the rear of the head casing in an "A Box" with appropriate breakers sized accordingly. All stations to have front and rear access for all electrical and plumbing maintenance. View laboratory schedule, and drawings for service options.

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## **2.04 FABRICATION**

1. Overall exterior dimensional information of Ninhydrin Processing Hood is as described in the table.  
Nominal Dimensions: 6 ft. Model: 78" w x 34" d x 75" h, 8 ft. Model: 96" w x 34" d x 75" h
2. The exterior shell shall be constructed from white polypropylene, with continuous seam welded construction complete with a removable front access panel with sufficient structural reinforcement to provide a rigid, stable unit.
3. The interior shell shall be constructed from white polypropylene. The containment plenum shall have a leak tight tongue and groove construction with continuous triple welded design with rounded corners.
4. Provide a full width vented base storage section constructed from white polypropylene with horizontal sliding removable access doors.
5. Provide full width integral exhaust plenum from the top, exhausting the work volume and the secondary containment plenum. The air intake airflow slots, located in rear of the Ninhydrin Processing Hood shall draw air directly into the cabinet through the front hand opening through the work zone and discharge through rear containment plenum directly to top exhaust duct collar connection.
6. Cabinet assembly shall be constructed such that all plenums are negative pressure plenums. Cabinet shall be designed such that all major service operations can be performed from the front of the cabinet.
7. View protection window shall be a hinged all sealed flip-up type, capable of moving to a fully opened position when Ninhydrin Processing Hood is not in operation.
8. All major electronic components (switches and service valves) shall be housed in a removable module for service or testing, located in the front valence of the cabinet.
9. The cabinet shall be pre-wired terminating in an electrical service outlet located on the rear base section ready for connection to a suitable 115 volt service.

## **PART 3 - EXECUTION**

### **3.01 INSPECTION**

1. Carefully check the contents of the carton for damage that might have occurred in transit.

### **3.02 PREPERATION**

1. Verify equipment rough in before proceeding with work.
2. Coordinate with other trades for the proper and correct installation of plumbing and electrical rough in and for rough opening dimensions required for the installation of the hood.

### **3.03 INSTALLATION**

1. Install according to manufacturer's instructions.
2. Install according to standards required by authority having jurisdiction.
3. Install equipment plumb, square and straight with no distortion and securely anchor as required.
4. Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.
5. Touch up minor damaged surfaces caused by installation. Replace damaged components as directed by Architect.

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**3.04 FIELD QUALITY CONTROL**

1. A qualified independent certifier should certify the cabinet before use. The certifier should perform tests as recommended in the manual.

**3.05 CLEANING**

1. Clean equipment surfaces as recommended by the manufacturer, rendering all work in a new and unused appearance.
2. Clean adjacent construction and surfaces, which may have been soiled in the course of installation of work in this section.

**3.06 PROTECTION**

1. Provide all necessary protective measures to prevent exposure of equipment and surfaces from exposure to other construction activity.
2. Advise contractor of procedures and precautions for protection of material from damage by work of other trades.

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